Claims 1, 4-9 and 11-33 are pending. The Examiner's reconsideration of the rejections is requested in view of the amendments and remarks.

Claims 1, 9, 14, and 27 are the independent claims.

Claim 1 has been rejected under 35 U.S.C. 102(e) as being anticipated by Makinouchi et al. (US 5,677,754). The Examiner stated essentially that Makinouchi teaches all the limitations of Claim 1.

Claim 1 claims, *inter alia*, "scanning the mask with the light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line, wherein the data line was previously formed by a previous scanning in perpendicular to the longitudinal direction."

Makinouchi teaches an illumination field 21/22 having a rectangular shape due to a fixed field stop 5, wherein the illumination field 21/22 is scanned over a reticle R having a rectangular shape (see FIGS. 2(a) and 3). Makinouchi does not teach "scanning the mask with the light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line, wherein the data line was previously formed by a previous scanning in perpendicular to the longitudinal direction" as claimed in Claim 1. Makinouchi teaches only circuit pattern regions, e.g., 20A, without explicitly teaching a pattern shape forming either a data line or pixel electrode within the circuit pattern regions – Makinouchi is silent on the topic of a circuit layout structure. Thus, Makinouchi does not teach the scanning of light using the apparatus "perpendicular to a longitudinal direction of the data line." The present invention forms a pixel

electrode and a data line by scanning in the same direction (substantially perpendicular to a longitudinal direction of the data line), thereby creating regular pattern intervals not found in the Makinouchi reference. Therefore, Makinouchi fails to teach all the limitations of Claim 1. The Examiner's reconsideration of the rejection is respectfully requested.

Claims 2-4 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Makinouchi in view of Isobe et al. (U.S. Patent Application No. 2003/0218169). The Examiner stated essentially that the combined teachings of Makinouchi and Isobe teach or suggest all the limitations of Claims 2-4.

Claim 4 depends from Claim 1 and is believed to be allowable for at least the reasons given for Claim 1. Claims 2 and 3 have been canceled. Reconsideration of the rejection is respectfully requested.

Claims 5, 6, and 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Makinouchi in view of Isobe, and further in view of Kim (U.S. Patent Application No. 2003/0211404). The Examiner stated essentially that the combined teachings of Makinouchi, Isobe and Kim teach of suggest all the limitations of Claims 5, 6, and 8.

Claims 5, 6, and 8 depend from Claim 1. The dependent claims are believed to be allowable for at least the reasons given for Claim 1. Reconsideration of the rejection is respectfully requested.

Claim 7 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Makinouchi in view of Isobe and further in view of Tanuma et al. (USPN 5,718,839). The Examiner stated

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essentially that the combined teachings of <u>Makinouchi</u>, <u>Isobe</u> and <u>Tanuma</u> teach of suggest all the limitations of Claim 7.

Claim 7 depends from Claim 1. Claim 7 is believed to be allowable for at least the reasons given for Claim 1. Reconsideration of the rejection is respectfully requested.

Claims 9, 14, 15, 19, and 21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Yang</u> (U.S. Patent Application No. 2003/0213966) in view of <u>Makinouchi</u>. The Examiner stated essentially that the combined teachings of <u>Yang</u> and <u>Makinouchi</u> teach of suggest all the limitations of Claims 9, 10, 14, 15, and 19.

Claim 9 claims, *inter alia*, "forming a gate line on the substrate; forming a data wiring layer on the substrate, wherein the substrate includes the gate line; forming a photoresist layer on the data wiring layer; disposing a data line mask including a data line pattern shape over the photoresist layer formed on the substrate; scanning the data line mask with a light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line pattern shape of the data line mask to expose the photoresist layer." Claim 14 claims, *inter alia*, "forming a photosensitive layer pattern by scanning with a light through a data line mask, wherein a direction of scanning is substantially perpendicular to a longitudinal direction of a data line to be formed during an exposure process, and the photosensitive layer pattern includes a first portion, a second portion thicker than the first portion, and a third portion thinner than the first portion."

<u>Yang</u> teaches a process for vapor depositing a low dielectric insulating film (see Abstract). As noted in the Office Action, <u>Yang</u> does not disclose scanning substantially perpendicular to a longitudinal direction of the pattern shape to expose the photoresist layer. Nowhere does <u>Yang</u> does not teach or suggest "scanning the data line mask with a light, such

that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line pattern shape of the data line mask to expose the photoresist layer" as claimed in Claim 9, nor "forming a photosensitive layer pattern by scanning with a light through a data line mask, wherein a direction of scanning is substantially perpendicular to a longitudinal direction of a data line to be formed during an exposure process" as claimed in Claim 14. Therefore, <u>Yang</u> fails to teach or suggest all the limitations of Claims 9 and 14.

Makinouchi teaches an illumination field 21/22 having a rectangular shape due to a fixed field stop 5, wherein the illumination field 21/22 is scanned over a reticle R having a rectangular shape (see FIGS. 2(a) and 3). <u>Makinouchi</u> does not teach "scanning the data line mask with a light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line pattern shape of the data line mask to expose the photoresist layer" as claimed in Claim 9 or "forming a photosensitive layer pattern by scanning with a light through a data line mask, wherein a direction of scanning is substantially perpendicular to a longitudinal direction of a data line to be formed during an exposure process" as claimed in Claim 14. <u>Makinouchi</u> fails to explicitly teach a pattern shape, much less a pattern of a data line. <u>Makinouchi</u> teaches circuit pattern regions, such as 20A, without explicitly teaching a pattern shape forming a data line; a data line pattern is not taught by <u>Makinouchi</u> within the circuit pattern regions. Therefore, <u>Makinouchi</u> fails to cure the deficiencies of <u>Yang</u>.

The combined teachings of <u>Yang</u> and <u>Makinouchi</u> teach a method for scanning light over a reticle without regards to a pattern shape formed on the reticle. The combined teachings of <u>Yang</u> and <u>Makinouchi</u> fail to teach or suggest "scanning the data line mask with a light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line pattern shape of the data line mask to expose the photoresist layer" as claimed in Claim 9, nor ""forming a photosensitive layer pattern by scanning with a light through a data line mask,

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wherein a direction of scanning is substantially perpendicular to a longitudinal direction of a data line to be formed during an exposure process" as claimed in Claim 14. Therefore, the combined teachings of Yang and Makinouchi fail to teach of suggest all the limitations of Claims 9 and 14.

Claims 15 and 19 depend from Claim 14. The dependent claims are believed to be allowable for at least the reasons given for Claim 14. Claim 10 has been cancelled. Reconsideration of the rejection is respectfully requested.

Claims 11, 12, 16, and 24 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Yang in view of Makinouchi and further in view of Tanuma. The Examiner stated essentially that the combined teachings of Yang, Makinouchi, and Tanuma teach of suggest all the limitations of Claims 11 and 16.

Claims 11, 12 and 24 depend from Claim 9. Claim 16 depends from Claim 14. The dependent claims are believed to be allowable for at least the reasons given for Claims 9 and 14. Reconsideration of the rejection is respectfully requested.

Claims 13, 17, 18, 20, 22, and 23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Yang in view of Makinouchi and further in view of Kim. The Examiner stated essentially that the combined teachings of Yang, Makinouchi, and Kim teach of suggest all the limitations of Claims 13, 17, and 18.

Claims 13, 20, 22, and 23 depend from Claim 9. Claims 17 and 18 depend from Claim 14. The dependent claims are believed to be allowable for at least the reasons given for Claims 9 and 14. Reconsideration of the rejection is respectfully requested.

Claims 27-33 are believed to be allowable for at least the reasons given above. For example, <u>Makinouchi</u> teaches an illumination field 21/22 having a rectangular shape due to a fixed field stop 5, wherein the illumination field 21/22 is scanned over a reticle R having a rectangular shape (see FIGS. 2(a) and 3). Claim 27 claims, *inter alia*, "scanning the data line mask with the light, such that a direction of the scanning is substantially perpendicular to a longitudinal direction of the data line pattern shape to form the data line." <u>Makinouchi</u> fails to explicitly teach a data line pattern shape. <u>Makinouchi</u> teaches circuit pattern regions, such as 20A, without teaching or suggesting a longitudinal direction of the data line pattern shape, essentially as claimed. Therefore, Claim 27 is believed to be in condition for allowance.

Claims 28-33 depend from Claim 27 and are believed to be allowable for at least the reasons given for Claim 27.

For the forgoing reasons, the present application, including Claims 1, 2, 4-9 and 11-33, is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.

Respectfully submitted,

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